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Amendments to the claims are set forth in the following listing of claims.

1. (Currently Amended; Withdrawn) A method for environmental monitoring and bioprospecting for microorganisms within a specified environment, said method comprising the steps of: locating ~~a testing the device of any one of claims 17-20~~ in said environment, ~~wherein said device including a container having a fluid inlet and outlet, said container configured for entry, in situ use and exit from said environment, a plurality of capillary microcosms situated within said container, each of said capillaries having a capillary inlet and outlet that are configured so as to allow for fluid flow through said capillaries, each of said capillaries further having a means for covering said capillary inlet and outlet so as to prevent flow through said capillary, placing in at least one of said capillaries a means for fostering the collection of microorganisms that are indigenous to said surrounding environment when fluid from said surrounding environment is allowed to flow through said capillary, opening said capillary covering means so as to allow fluid from said surrounding environment to flow through said container and capillaries, leaving said device in said environment for a temporal duration sufficient to study phenomena occurring within said capillary microcosms, retrieving said testing device, and analyzing phenomena occurring within said capillary microcosms.~~

2-16. (Canceled)

17. (Previously Presented) A testing device for environmental monitoring and bioprospecting for microorganisms within a specified environment, said device comprising:

a means for providing a plurality of physically separated, test microcosms that are so configured as to allow for fluid flow through said microcosms,

a means for containing and protecting said test microcosms as they are placed in said environment, said means further providing for the flow of fluid from said surrounding environment to enter and flow through said microcosms, and

a means for covering said fluid flow paths through said microcosms so as to regulate the flow through said microcosms.

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18. (Previously Presented) A testing device as recited in claim 17: wherein said plurality of microcosms being configured so as to allow for automated analysis of said microcosms using commercially available robotics.

19. (Previously Presented) A testing device as recited in claim 17, further comprising:

a means for causing fluid flow from said surrounding environment and through said microcosms,

a means for collecting and retaining said fluid flowing through said microcosms, and

a means downstream from said microcosms for preventing backflow of said fluid into said microcosms.

20. (Previously Presented) A testing device as recited in claim 18, further comprising:

a means for causing fluid flow from said surrounding environment and through said microcosms,

a means for collecting and retaining said fluid flowing through said microcosms, and

a means downstream from said microcosms for preventing backflow of said fluid into said microcosms.

21. (Previously Presented) A testing device as recited in claim 17 further comprising a means in at least one of said microcosms configured for fostering the collection of said microorganisms that enter said microcosm.

22. (Previously Presented) A testing device as recited in claim 18 further comprising a means in at least one of said microcosms configured for fostering the collection of said microorganisms that enter said microcosm.

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23. (Previously Presented) A testing device as recited in claim 19 further comprising a means in at least one of said microcosms configured for fostering the collection of said microorganisms that enter said microcosm.

24. (Previously Presented) A testing device as recited in claim 20 further comprising a means in at least one of said microcosms configured for fostering the collection of said microorganisms that enter said microcosm.

25. (Previously Presented) A testing device as recited in claim 17 wherein at least one of said microcosms having a means for containing a specified test substance that can diffuse into the fluid flowing through said microcosm.

26. (Previously Presented) A testing device as recited in claim 18 wherein at least one of said microcosms having a means for containing a specified test substance that can diffuse into the fluid flowing through said microcosm.

27. (Previously Presented) A testing device as recited in claim 19 wherein at least one of said microcosms having a means for containing a specified test substance that can diffuse into the fluid flowing through said microcosm.

28. (Previously Presented) A testing device as recited in claim 20 wherein at least one of said microcosms having a means for containing a specified test substance that can diffuse into the fluid flowing through said microcosm.

29. (Previously Presented) A testing device as recited in claim 17 wherein said plurality of test microcosms being configured in the form of a rapidly, exchangeable microtiter plate.

30. (Previously Presented) A testing device as recited in claim 18 wherein said plurality of test microcosms being configured in the form of a rapidly, exchangeable microtiter plate.

31. (Previously Presented) A testing device as recited in claim 19 wherein said plurality of test microcosms being configured in the form of a rapidly, exchangeable microtiter plate.

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32. (Previously Presented) A testing device as recited in claim 20 wherein said plurality of test microcosms being configured in the form of a rapidly, exchangeable microtiter plate.

33. (Previously Presented) A testing device as recited in claim 29 wherein the content of said microtiter plate being lyophilized and vacuum sealed.

34. (Previously Presented) A testing device as recited in claim 30 wherein the content of said microtiter plate being lyophilized and vacuum sealed.

35. (Previously Presented) A testing device as recited in claim 31 wherein the content of said microtiter plate being lyophilized and vacuum sealed.

36. (Previously Presented) A testing device as recited in claim 32 wherein the content of said microtiter plate being lyophilized and vacuum sealed.

37. (Previously Presented) A testing device as recited in claim 17, wherein a test microcosm configured so as to aid in addressing research interests chosen from the group consisting of:

the identification and linking of the microbial function occurring in said environment to phylogeny, wherein at least one of said microcosms having placed therein an isotope labeled test compound that can be used in conjunction with SIP,

the identification and linking of the microbial function occurring in said environment to phylogeny, wherein at least one of said microcosms having placed therein an isotope labeled test compound that can be used in conjunction with mass spectrometry,

the survival in said environment of a specified microorganism, herein at least one of said microcosms having placed therein said specified microorganism,

the fate in said environment of a specified, genetically engineered microorganism, wherein at least one of said microcosms is configured to contain said genetically engineered microorganism,

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the fate in said environment of a specified pathogen, wherein at least one of said microcosms is configured to contain said pathogen,

for a specified process in said environment, the effectiveness of specified, varying test substances for their ability to accelerate said process, wherein said test substances are added to said microcosms,

the identification of microorganisms indigenous to said environment that are responsible for a desired bioremediation process in said environment,

the effectiveness of said varying bioremediation strategies for said environment, wherein said microcosms are configured to be representative of said varying bioremediation strategies,

the effectiveness of said varying bioaugmentation strategies for said environment, wherein said microcosms are configured to be representative of said varying bioaugmentation strategies,

the effectiveness of said varying chemical treatment strategies for said environment, wherein said microcosms are configured to be representative of said varying chemical treatment strategies,

the intrinsic transformation rates in said environment when said environment is contaminated with a specified contaminant,

the enhanced transformation rates in said environment when said environment is contaminated with a specified contaminant, wherein specified nutrients are added to said microcosms,

the analysis of the microbial community indigenous to said environment,

the proteomic analysis of the microbial community indigenous to said environment,

the discovery within said environment of novel microorganisms of potential commercial value,

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the discovery within said environment of novel biochemical processes of potential commercial value,

the discovery within said environment of novel natural products of potential commercial value,

the normalization of the test results achieved with said device for differences between when and where said tests are conducted, wherein at least one of said microcosms is configured to serve as an internal standard to which said results can be normalized,

the means for enhancing the signal-to-noise ratio in the mass spectrometric analysis of a specified microorganism, wherein at least one of said microcosm configured to foster the growth of said microorganism while limiting the growth and survival of other, non-specified microorganisms,

the determination of the fate of a specified compound in said environment for the purpose of chemical risk assessment, wherein at least one of said microcosms having placed therein said compound,

the determination of the effect of a specified compound on the microbial community of said environment for the purpose of chemical risk assessment, wherein at least one of said microcosms having placed therein said compound,

the determination of the fate of a specified microorganism for the purpose of biological risk assessment, wherein at least one of said microcosms having placed therein said microorganism,

the determination of the effect of a specified microorganism on the microbial community of said environment for the purpose of biological risk assessment, wherein at least one of said microcosms having placed therein said specified microorganism,

the determination, for environmental monitoring purposes, of the effect of a specified